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ABSTRACT

Several trends are significantly affecting the early childhood education field, with the major accomplishment of crystallizing the scope of early childhood education as birth through 8 years of age. These trends and innovations include the following: (1) restructuring early childhood education programs, by introducing formal schooling, decentralizing schools, developing extended-day programs, and certifying early school teachers; (2) promoting positive self-concepts among children, through such programs as Project PIAGET (Promoting Intellectual Adaptation Given Experiential Transforming), a bilingual early childhood education program that employs social reinforcement for young children's actions, activities, modeling, playing, and imitating for a positive mosaic of self; (3) developing "thinking" skills and the attitudinal conditions (e.g., intellectual curiosity, objectivity, and open-mindedness) that promote skills such as focusing on a question, judging the credibility of a source, deducing and judging deductions, defining terms, and deciding on an action; (4) emphasizing active learning through involvement with physical objects and experiential social situations in such modes as play, imitation, two- and three-dimensional models, and onomatopoeia; (5) involving parents in their children's education by helping the parents understand their roles as their children's first teachers, understand school procedures, and develop positive attitudes toward school; (6) using computers; and (7) using peer groups as facilitators of learning. Individually and collectively, these trends present substantial challenges to early childhood teachers, administrators, parents, and children. (Contains 34 references.) (AC)

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WHAT IS NEW IN EARLY CHILDHOOD EDUCATION: DO WE ACCEPT THE CHALLENGES?

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What is New in Early Childhood Education?

Do We Accept the Challenges?

Introduction

Early childhood education is a fresh, new, and exciting field in which to work and study. It is fresh and exciting because of early childhood's focus on young children and their parents and new because it is an emerging and developing field of its own (Cartright & Peters, 1982).

Prior to the 1960's, many teachers, parents, school administrators, and researchers viewed early childhood education as encompassing ages three to four, while others defined it as birth to two years of age (Peters, Neisworth & Yawkey, 1985). Regardless of conflicting age ranges, early childhood, prior to the 1960's, was thought to focus on the young child before entry into formal public education at kindergarten or grade 1. The conflicting definitions of early childhood education prior to the 1960's were artifacts of the various educational movements contributing to the growth of this field. These movements as foundations for the beginning of early childhood education include family-based, day care, nursery school, kindergarten and compensatory education programs (Peters, Neisworth & Yawkey, 1985, p. 16).

From 1965 to the present, the definitional views of early childhood education have markedly changed. Currently, early childhood education is defined as birth to eight years of age (Trostle & Yawkey, 1991). There are two main reasons for this change in definition. The first reason concerns the results of numerous research studies conducted during this time period. These research studies empirically verified our previously intuitive notions and ideas that early childhood education was not only the critical cornerstone of the young and older child's cognitive, language, social, and physical growth, but also that the early years of the young child end at eight/nine years

of age. The demarcation between early and middle childhood education is marked by the young child's developmental acquisition of the ability to perform certain mental operations such as classification and seriation without or with minimal use of concrete objects (Piaget & Inhelder, 1969). Examples of some of these major research studies include Hunt (1961), Bloom (1964), and Skeels (1966). Hunt's (1961) research results suggest that 50% of the intelligence the child shows at 18 years of age is already acquired by five years of age. This rapid acquisition of major portions of native intelligence provides documented support for the significance of the early childhood years. The results of other studies such as Bloom (1964) and Skeels (1966) showed that if "disadvantaged" and "deprived" children are to succeed and contribute to our society, then formal education for these children must begin in the formative years and with early childhood education. Although terms such as "disadvantaged," "compensatory," and "deprived" are no longer used to label young children from lower income strata, the strong impetus and realization survives for the significant impacts that early childhood education makes on young children, birth to eight years of age.

The second reason for the change in the definition of early childhood education was the massive Federal involvement begun in 1965 in the lives of young children and their parents from lower income strata (Cartright & Peters, 1982). Beginning in Summer 1965, the Federal Government funded Project Head Start and shortly thereafter Project Follow Through - the extension of systematic programming into public school kindergarten to third grade programs. Although extensive summaries of research on Head Start and Follow Through are detailed elsewhere (see Hodges & Sheehan, 1978, Miller, 1979), the results in general were favorable. These results, in general, showed that systematic programs for young children can favorably impact and significantly increase their intellectual, social, and language growth. In addition,

these increases in young children's growth can be extended into the primary grades when they are provided with systematic model programs whose philosophy and theoretical orientation match or are consistent with their prior Head Start program orientations (Peters, Neisworth & Yawkey, 1985).

With numerous research studies and their results and with the founding and implementation of Head Start, the field of early childhood education solidified and crystallized with the focus on young children, birth to age eight. Currently, 45 states (Mastain, 198) and Puerto Rico have teacher certification/endorsement for early childhood education and 95% of the states view early childhood education in the public schools as ending in third/fourth grade and extending downward.

Within this quickly developing field, there are many new and exciting trends and innovation that are impacting early childhood education. These new trends and innovations include (a) restructuring early childhood education programs, (b) promoting positive self concepts, (c) developing "thinking" skills, (d) emphasizing active learning, (e) involving parents in their children's education, (f) using computers, and (g) using peer groups as facilitators of learning. In the following sections, this paper outlines and describes these new innovations in order to help clarify and accept the challenges associated with each new innovation.

Restructuring Early Childhood Programs

Since 1985, debates and discussions are continuing to occur concerning restructuring public school programs and teacher training programs. Many books and journal articles are written about restructuring concerning "whys," "whats," and "hows" of restructuring. Two of the most recent are by Cavazos (1990) and Channey (1990). Cavazos (1990), former U. S. Secretary of Education, in issuing the Nation's Report Card, called for drastic restructuring of American Schools. After analyzing

achievement data that compared American school children at fourth, eighth, and twelfth grades in 1988 with those in 1968, Cavazos (1990) notes no improvement in achievement in American students in 20 years. In fact, writing, science, and civics achievement of 1988 American children fell below the achievement of 1968 students, while achievement in reading and history between 1988 and 1968 remained at the same levels. The recommendations made for restructuring school programs and teacher training programs that impact directly early childhood education include: (a) developing and implementing parent education programs as partnerships between school and home, (b) increasing time allocations for reading and writing at school and home, and (c) employing better teaching and instructional methodologies and decreasing lecturing techniques in classrooms. Channey (1990), in also calling for restructuring, recommends increasing drastically parental involvement and parental choices of schools their children attend and significantly decreasing the number of methods-of-teaching courses required of education majors.

Restructuring early childhood programs sheds light on four related trends: (a) formal schooling for three and four year-old children, (b) greater decentralization of early childhood schools, (c) extended morning and afternoon programs, and (d) certification for early childhood teachers.

Formal Schooling

In restructuring early childhood programs, great attention is being given to developing and implementing school programs for four and three year-old children. Assuming five year-olds in formal kindergartens, the natural growth is downward and to formal programs for four and three year-olds (Fallen & Umansky, 1985). Supported by research studies from child psychology, human development and education, the tremendous, rapid development children make in language, intellectual and social

growth in their early years testifies to the need for formal schooling. In addition, parents are supporting and requesting this extension as options for their children and themselves (Yawkey & Cornelius, 1990). Puerto Rico and many states in the continental United States have legislative initiatives, requirements and mandates for four and/or three year programs. Some of these states include, for example, New York, Texas, and California. These legislative initiatives, foremost, require government and/or tax rather than direct parental monies to finance these programs.

Further, the trend for three and four year-old programs as part of kindergarten to grade 12 schooling means focusing and building these programs on developmental abilities and characteristics of young children rather than on subject matter content (Peters, Neisworth & Yawkey, 1985; Edwards, 1990). The activities and experiences used with the young child are critical to his/her present and future development. Accordingly, the subject matter, lecture and "drill-them-to-skill-them" and other elementary education methods cannot be used or permitted in early childhood education programs for children younger than age six. Since early childhood education programs are not "downward" extensions of elementary education programs, they must be viewed in context of the child's development. The "hows" of developing, implementing, and evaluating programs for three and four year-olds using their developmental abilities are detailed elsewhere (see Peters, Neisworth & Yawkey, 1985).

Decentralization of Schools

Restructuring means decentralizing early childhood education schools on a number of levels. On one level, the idea is to divide up the large geographically regional school district into several very much smaller school districts (Channey, 1990). In turn, the idea is to divide up the smaller school district into school buildings

that are divided by developmental characteristics. For example, children 12, 13, and 14, because they show developmental characteristics more in common with each other, might be housed within one middle school building only comprising grades 6, 7, and 8. In similar fashion, early childhood program might be housed in one or two buildings containing 3, 4, and 5 year-olds and perhaps another for 6, 7, and 8 year-olds (Channey, 1990).

Decentralizing school programs into smaller school districts and into units is based on children's developmental characteristics rather than on administrative conveniences. This decentralizing benefits schooling in several ways. First, Channey (1990) contends that effective schools are decentralized schools. The decentralized school is more responsive than the large centralized school district because it is closer to its regional teachers, parents, and children than the large centralized one. In addition, decisions in schooling in decentralized versus centralized ones are made at local rather than regional or national levels (Channey, 1990). Accordingly, these decisions are more responsive to schooling and community needs because they are made by local administrators, teachers, and parents, and they are made with parents and teachers. Schools that respond directly to children, parents, community, and teachers are effective schools that enhance and extend development and learning of the young children they serve.

Extended Programs

As we continue restructuring our schools, the third related theme is to develop quality extended-day programs for young children whose parents or children need them (Nurss & Hodges, 1982). Schools are in operation during specific times and usually cover a seven and one-half hour day. For example, some schools are on an 8:30 to 3:00 schedule, while others may be on a 9:00 to 3:30 schedule. Regardless of

beginning and ending times and whether school programs are half-days or full seven and one-half hour days, extended programs are those which are in session prior to and after formal schooling begins and ends (Peters, Neisworth & Yawkey, 1985). Extended programs are for those young children who need care, supervision, and/or additional developmental time for intellectual, social, and language growth. These extended programs may also serve the needs of the working adult family who need to be at their jobs on a daily 8:00 to 5:00 basis and who have no remaining adults at home to care for their children prior to or after formal schooling. "Latch-key" children are a growing phenomena and artifact of our contemporary economic and financial survival. Because of numerous common-sense reasons, young children should not be permitted to care for themselves or older children be "drafted" to supervise them.

These extended programs can provide numerous services that benefit the young child and family. These services might include quality care, flexible scheduling, nutritious foods served at breakfast, before and after school snacks, and in some cases, the evening meal, rest/nap times, medical and dental needs, and developmentally appropriate activities with certified early childhood education staff (Nurss & Hodges, 1982). This trend toward extended program for young children is mushrooming. Similar to other educational programming, it must be planned and implemented effectively to benefit the young child and his/her family.

Certification for Early School Teachers

The necessary, related theme in restructuring early childhood education is the proper college preparation of adults who desire to work with young children, birth to eight years of age. Puerto Rico and 90% of the states require college coursework/certification for early childhood teaching. Early childhood education as a field and young children directly are benefiting from these certification/endorsement

programs (Mastain, 198). This trend toward early childhood education teacher certification will not only continue to increase to include the remainder of the states, but also that certification/endorsement programs will be in effect for young children, birth to eight.

In sum, and with restructuring early childhood schools, there are several related trends that are critical to early childhood education, young children, and parents. Accepting these related trends as challenges and finding financial modes and ways to implement them will determine whether or not our next generations of children will become responsive citizens in our technological society.

Positive Self Concepts

The second major trend occurring in early childhood education is promoting positive self concept. Although dating back to Rousseau's ideas of children's need for positive responding environments, the focus is on becoming more systematic in promoting children's self concepts. Systematically promoting positive self concepts means that early childhood teachers actually plan and carry out strategies, routines, and activities on a daily basis for self concept growth.

In planning systematically for promoting positive self concept, the early childhood educator understands that the focus is on developing "good feelings about self." Developing "good feelings about self" focuses on young children and "what they do." As viewed by researchers such as McDonald (1980) and Yawkey (1980), the young child's self concept is a "mosaic-of-self" comprising facets such as body-self, social-self, physical-self, intellectual-self, and so forth. Each of these facets comprising the "mosaic-of-self" evolves from "what children do." For example, a well coordinated child through her/his physical activities develops a positive physical self; a child with expertise in mathematical activities shows a positive intellectual-mathematics self.

Since self concept is framed in facets tied to activities in each facet, the actions, activities, and things children do and personal feelings of how well they do them become imperative. In this sense, early childhood teachers can systematically prompt and nurture positive self concepts in each of the children's facets-of-self. For example, as children try, do, and make things and perform activities and actions, early childhood teachers may offer systematically social reinforcement for trying and/or completing them. Social reinforcement includes such "tangibles" as "hugs," "pats on the back," "handshakes," and so forth, accompanied with teacher statements, for example, "Good job, Juanita, on putting together the three-piece puzzle!," "Wow, Julio, you have laced your right shoe!" The child attempting and/or completing actions and activities accompanied by the adult's socially reinforcing actions and statements that pinpoint exactly the action are not only quality teaching strategies, but also are "enhancers of positive self concept."

In addition to trying and/or completing activities and actions and making things and objects, socially reinforcing statements and actions can be used with young children as they model, imitate, and play with or at something or somebody. Modeling, playing, and imitating are natural process actions used readily by young children (Johnson, Christie & Yawkey, 1987). They are ideally suited to social reinforcers that nurture positive self concept (Bandura, 1977). For example, as Jose, Carmen or Maria imitate, model or roleplay a situation, the adult may socially reinforce using statements such as, "Maria is carefully pouring the coffee into the cup just like mother!" The early childhood educator's systematic use of social reinforcers accompanied with "hugs" and "handshakes," for example, promotes positive self concepts and "good feelings of self."

Project P.I.A.G.E.T.

One example of a model program for bilingual early childhood education that employs social reinforcement for young children's actions, activities, modeling, playing and imitating for a positive "mosaic-of-self" is Title VII Project P.I.A.G.E.T. (Promoting Intellectual Adaptation Given Experiential Transforming). Based in the Bethlehem Area School District in Bethlehem, Pennsylvania and developed for Puerto Rican children and parents at the early childhood level, Title VII Project P.I.A.G.E.T. began in 1981. In operation to the present, Project P.I.A.G.E.T. trains its project staff in the classroom and the children's parents in the home component to use systematically social reinforcement to nurture self concept.

As one of 22 teaching strategies used by teachers and aides in the classroom component, the "whats" and "hows" of using social reinforcement are trained, demonstrated, and its uses monitored systematically in the classroom. In staff training, P.I.A.G.E.T. teachers and aides are shown how to use social reinforcement to nurture young children's self concept as they attempt, complete, and begin new activities. The staff demonstrate and practice making social reinforcement statements and linking these statements with what children tried, accomplished or initiated. For example, "Excellent job, Marian, you made "coqui" from blocks!" The anchoring of social reinforcement with what children do nurtures a specific facet of self concept; in this case, the cultural-self. This anchoring lets the children "why" they are receiving the praise (Bandura, 1977).

For the P.I.A.G.E.T. home component, parents are shown and trained how to use this social reinforcement strategy with their children in home settings and at other locations, for example, "finding tomatoes at the local supermarket." P.I.A.G.E.T. parents

feel that they are helping their children learn concepts and develop positive self concepts.

Using pretests and post-tests for self concept development, the P.I.A.G.E.T. children compared to other Puerto Rican children not in this project have significantly greater positive self concepts of themselves and what they do (Yawkey, 1991, in press). In addition, the results show that the P.I.A.G.E.T. parents compared to other Puerto Rican children not in this project have significantly greater positive self concepts of themselves and what they do (Yawkey, 1991, in press). In addition, the results show that the P.I.A.G.E.T. parents compared to other Puerto Rican parents not in the project have significantly higher positive attitudes and expectations of their children (Yawkey, 1991, in press). These results are consistent since 1981 across approximately 400 young children and parents. In addition to increases in children's positive self concept and parents' attitudes and expectancies of their children, the results show that children who are socially reinforced in systematic ways also increase their persistence and perseverance at activities and tasks (Yawkey, 1991, in press).

The various types of activities that can be used by early childhood teachers in classrooms and by parents in homes with self concept and social reinforcement values are explained elsewhere. For detailed examples and uses of activities see, for example, Trostle & Yawkey, 1991 and Yawkey, Dank & Glossenger, 1986.

Developing Thinking Skills

Another major trend in early childhood education is the focus on thinking skills of young children. Thinking skills are those necessary concepts and skills fundamental to decision making and problem solving. These thinking skills are higher mental processes that emphasize "how" to think rather than "what" to think (Vygotsky, 1978). Thinking skills, depending on the writer, are also called critical thinking (Walsh

& Paul, 1986), logical reasoning (Piaget & Inheeder, 1969) or reflective and reasonable thinking (Ennis, 1984). Regardless of the variety of different names for thinking skills, this trend suggests that children must be taught and must learn to "think-individually" and "for themselves" (Johnson, 1990). Walsh and Paul (1968) stress that thinking skills emphasize "knowing" rather than "knowledge." Again, the stress is on processes of arriving at generalizations and doing problem solving and decision making rather than on products or facts and informational bits of knowledge. Here, what children do and how they organize their knowledge to solve problems and make decisions with that knowledge produce "knowing." In addition, and regardless of the different terms used to identify this trend developing, thinking skills is the greatest need of the schools (Channey, 1990, Ennis, 1984). For example, Henry (1990, p. 8A) notes that:

> "Although research has shown that nearly all students beyond the age of 12 should be able to reason at the formal operational level, less than 40 percent of high school graduates are able to demonstrate higher-level thinking skills."

Puerto Rico and some 26 states such as Pennsylvania, New York, Connecticut, and Wisconsin have identified thinking skills and their imperative need in schooling as a part of their top educational goals for preschool, K-12 schooling.

Components of Thinking

Glaser in Walsh and Paul (1968, p. 1) defines three component principles of critical thinking: attitude, knowledge and skill. The attitudinal component is the manner or mode used by the individual to judge, consider and respond to his/her ongoing activities and experiences. D'Angelo (1971) in Walsh and Paul, 1986 (p. 9) defines the attitude component further by identifying the necessary conditions and situations for its growth and nurturance. D'Angelo (1971) in Walsh and Paul (1986,

p. 9) describe the following attitudinal conditions for the development of thinking skills. From D'Angelo (1971) in Walsh and Paul (1986, p. 9) they are:

1. intellectual curiosity. Seeking answers to various kinds of questions and problems. Investigating the causes and explanations of events; asking why, how, who, what, when, where.
2. objectivity. Using objective factors in the process of making decisions. Relying on empirical evidence and valid arguments and not being influenced by emotive and subjective factors.
3. open-mindedness. A willingness to consider a wide variety of beliefs as possible being true. Making judgments without bias or prejudice.
4. flexibility. To be willing to change one's beliefs or methods of inquiry. . . . A realization that we do not know all the answers.
5. intellectual skepticism. Postponing the acceptance of a conclusion as being true until adequate evidence is presented.
6. intellectual honesty. The acceptance of statements being true when there is sufficient evidence, even though it negates some of our cherished beliefs.
7. being systematic. Following a line of reasoning consistently to a particular conclusion.
8. persistence. To persist in seeking ways of resolving disputes.
9. decisiveness. To reach certain conclusions when the evidence warrants it.
10. respect for other viewpoints. A willingness to admit that you may be wrong and that other ideas you do not accept may be correct.

Listening carefully to another point of view and responding accurately to what has been said.

The second component principle of thinking skills is knowledge. Glaser in Walsh and Paul (1968, p. 1) views knowledge as the understanding ". . . of methods of logical inquiry and reasoning." The third component principle of Glaser in Walsh and Paul (1986, p. 1) is the use of these knowledge methods of reasoning and problem solving.

Early Childhood Examples

For the young child it is quite obvious that focusing on all component principles at one time is inappropriate and in opposition to developmental forms of teaching and learning in early childhood education (Peters, Neisworth & Yawkey, 1985). What is imperative for early childhood teachers is that thinking skills are to be nurtured and developed in contexts of concrete experiences and individual and group activities. In addition, some examples follow of thinking skills for young children in reading/language arts:

1. knows that a book is for reading;
2. can turn the pages of a book properly;
3. knows that pictures and page are related to what the print says;
4. knows what a title is;
5. knows what an author is;
6. retells a story without the help of the book;
7. responds to story readings with literal questions and comments;
8. responds to story readings with interpretive and critical questions and comments;

9. participates in story reading by saying words and narrating stories as the teacher is reading them;
10. attempts to read well-known story books which results in well-formed stories (Morrow, 1989, p. 102-103).

The emphasis on use and application of ideas in context is critical to the young children's development of reasoning and problem solving.

Ennis (1984) in Walsh and Paul (1968, p. 12) identifies various groups of critical thinking skills and gives several examples of each category. They follow:

1. Category 1. Elementary Clarification:
   A. Focusing on a question.
   B. Asking and answering questions of clarification.
2. Category 2. Basic Support
   A. Judging the credibility of a source.
   B. Observing an judging observation reports.
3. Category 3. Inference
   A. Deducing and judging deductions.
   B. Making an judging value statements.
4. Category 4. Advanced Clarification
   A. Defining terms and judging definitions.
   B. Identifying assumptions.
5. Category 5. Strategy and Tactics
   A. Deciding on an action.
   B. Interacting with others.

Detailed examples of actual critical thinking skills at various age and grade levels are found elsewhere (e.g., Walsh & Paul, 1986).

Emphasizing Active Learning

The fourth major trend in early childhood education is active learning. Active learning is the child's involvement with physical objects and experiential social situations. Educational specialists such as Cavazos (1990 contend that education for young children must be more active rather than passive. Further, Cavazos (1990) notes that passive learning doesn't contribute to meaningful understanding and actually hinders learning processes and problem solving. Teaching methods that support passive learning include lecturing and talking to the children, having children color pictures for large time periods, filling out ditto pages and forms, using few physical activities and sitting at desks for long periods of time (Cavazos, 1990).

From one perspective, active learning is children's involvement with physical experiences and objects. This involves children's motor an sensory actions in moving an using objects (Peters, Neisworth & Yawkey, 1985). Motor actions are large and small body movements and body coordinations used with physical objects and experiential situations (Yawkey, Dank & Glossenger, 1986). Sensory experiences and actions involve the use the children's senses of seeing, hearing, touching, tasting, and smelling. With sensory and motor involvement, the children take in information with their senses and through motor actions. In using a truck or wooden blocks, for example, children through sensory and motor actions have basic, concrete experiences with colors, sounds, textures and tastes of these objects. As they take in information about these various objects, their concepts about these objects change to accommodate new and old ideas. For example, a child who understands through prior sensory and motor experiences that trucks have four wheels now becomes actively involved with and uses a truck having three wheels. The child's concept of "truck" now changes to include four- and three-wheeled ones. No amount of lecturing

and talking about trucks having both three and four wheels is sufficient for meaningful acquisition of this concept. Without sensory and active experiences, the child may forget or through rote recall that trucks can have three and four wheels. Through this interplay between the child's actions (sensory and motor) and objects, intellectual and language structures develop and evolve.

From a second perspective, active learning is children's involvement with social experiences and situations. Since this type of active learning involves children's social worlds, the interplay occurs between self and others' ideas and imparts the child's intellectual and language growth (Morrow, 1989). Active learning through social experiences and situations involves individuals and peers in the family, religious organizations, schools, scouting and other community groups, an other institutions. Morrow (1989, p. 8) says that "Children emulate behaviors an incorporate them into their existing structure of knowledge when they are exposed to new situations in which they can actively interact with others."

Children's active learning resting on sensory, motor and social experiences become the "roots of learning" and the "channels" by which children take in change, modify and use their ideas and information.

Modes of Active Learning

There are many modes of active learning that rest on sensory, motor and social actions. These modes include: play, imitation, two- and three-dimensional models, and onomatopoeia (Peters, Neisworth & Yawkey, 1985, p. 310).

In make-believe play, young children use sensory, motor an social actions in dramatic and sociodramatic play. In engaging in make-believe play, they ". . . use . . . objects to symbolize or represent other objects (Peters, Neisworth & Yawkey, 1985, p.

310." This form of active learning is critical to he young child's interaction with social and physical environments in which he/she lives.

For imitation, young children ". . . use . . . [their bodies] . . . to represent directly other objects without the use of props (Peters, Neisworth & Yawkey, 1985, p. 310)." Again, children's sensory, motor and social actions as active learning are crucibles for meaningful development. Here, they imitate with their body and language systems any variety of objects and situations such as "Mommy sweeping the floor!," "astronauts jumping an walking on the moon" and so forth. The third mode useful for active learning is two-dimensional pictures. With this mode, the children draw pictures of objects; and situations and as they draw and discuss their creations, meaningful active learning evolves. Here, the young children represent their prior social, sensory and motor experiences and recreate them in two-dimensional form.

With three-dimensional models, children reconstruct actual experiences or construct imaginary ones using previous and present sensory, social and motor interactions. This mode provides children with active opportunities for "construction and recognition of objects through toys or three-dimensional representations (Peters, Neisworth & Yawkey, 1985, p. 310)." Examples include making a space station out of blocks and using paper mache to construct people or objects. The final mode important for active learning is onomatopoeia (Peters, Neisworth & Yawkey, 1958). Here, young children use sounds with or without objects to symbolize other objects. Children make "barking" sounds to represent dogs, "chirping" for birds, and so forth. These modes for active learning provide meaningful experiences and serve children's developmental tool for representation.

Types of Objects

Along with various modes of learning, types of objects an instructional materials also impact sensory, motor and social experiences. Yawkey and Trostle (1984) view concrete objects used in the classroom from four perspectives. These perspectives can be used as criteria to examine whether early childhood teachers are promoting active learning through objects. The first point in the criteria is to examine whether classrooms have instructional materials. These objects are close-ended, have specific outcomes, and are designed by the manufacturers to teach skills (Yawkey & Trostle, 1948). This type includes puzzles, nesting blocks, buttoning boards, and so forth.

The second point in the criteria is constructional objects. These materials are open-ended and have no specific or particular outcomes built commercially into them. The outcomes are divergent and up to the child's own thinking abilities. Examples are building blocks, tinkertoys, and lincoln logs. The third concrete object category is toys. They are miniature replicas of real-life objects in children's physical and social milieu (Yawkey & Trostle, 1984). The various groups with their respective examples are: (a) transportation toys (e.g., buses, cars, spaceships), (b) housekeeping (e.g., coffee cups, brooms, forks, and (c) people/animal toys (e.g., police and fire officials, ninja dolls).

The final type of toy as part of the criteria is real objects. Real objects are various materials and items made for adult's use but readily used by young children (Yawkey & Trostle, 1984). Several examples of real objects are hammers, nails, cardboard boxes, sand, water, and clay.

In sum, the necessary requirement for active learning contributes substantially to the young child's growth, development, and thinking skills, including problem solving.

Involving Parents in Their Children's Education

The fifth major trend is involving parents in their children's education. Whether called parent involvement or parent education, the outcome is similar; involving parents directly in the education of their children is fast becoming reality (Yawkey & Cornelius, 1990). Current studies surveyed by various writers from several perspectives (see Yawkey & Cornelius, 1990), all point to the need for and the benefits of this trend. The rationale for involving parents in their children's education include:

1. increased parental understanding of their roles as primary educators or the "first" teachers of their children (Morrow, 1989),
2. greater understanding of school procedures (e.g., conferencing, tardiness) and policies (e.g., reporting grades, retention) (Applegate, Burke, Burleson, Delia & Kline, 1985), and
3. increased positive attitudes towards school, administrators, and teachers (Yawkey, 1991, in press).

Given the emergence, current reality of, and demand for this trend in early childhood education, the "hows" or processes of involving parents show the benefits of this trend.

P.I.A.G.E.T. Parent Involvement

The "hows" of involving parents is an example of parent impacts on bilingual young children enrolled in Title VII Project P.I.A.G.E.T. (Promoting Intellectual Adaptation Given Experiential Training). In addition to serving other native language speakers, Project P.I.A.G.E.T. enrolls young Puerto Rican bilingual children and their parents at its major site in Bethlehem Area School District, Bethlehem, Pennsylvania and other sites.

In involving Puerto Rican parents in he education of their children, trained P.I.A.G.E.T. aides meet individually once a week with each parent in the parents' homes. With an average of 36 weeks in the typical public school academic year, the aide would visit each parent 36 times. The P.I.A.G.E.T. aide-parent meeting takes about one hour. During this meeting the P.I.A.G.E.T. aide is trained to carry out two responsibilities or major tasks. The first responsibility is to share with the parent the major successes their child had in the classroom that week. Examples include: "Jose counted to number five.", "Maria put together a four-piece puzzle.", "Iris completely tied her show laces today for the first time."

The second responsibility of the P.I.A.G.E.T. aide is to train the parents to become teachers of their children in home settings. The P.I.A.G.E.T. aide begins and completes the parent training by following a five-part cycle, "Home Learning Mastery Cycle" (HLMC) (Yawkey, 1991, in press). A description of each part and examples follow. Note that the time estimates for each HLMC part is a rough estimation which simply lets the aide know that there is a beginning an ending to each cycle.

Part 1, "Summarizing and Reporting from the Previous Week (five minutes)," focuses on the parent telling the aide how she used the skill learned last week with her child. For example, the parent says, "I used the game, 'Simon Says' with my child three times." and goes on to describe these uses. Part 2, "Explaining the Current Session's Learning Plan," is where a new parent-child skill is introduced this week for parent training. The aide then talks with the parent about this skill and the home materials required for it. For example, the P.I.A.G.E.T. aide may say to the parent, "This week's skill is finding objects in the home that are red, blue and green and then naming these colors with the objects."

For Part 3, "Modeling the Learning Action Plan for the Parent (15 minutes), the aide shows by modeling what the parent does with her child. The aide may say, "Find (action word) something in the room that is red." The aide waits until the parent finds a red object and then may say, "Point to (action word) and name (action word) the color of the object." The parent follows through by pointing to" and "naming" the "objects." The parent follows through by "pointing to" and "naming" the object's color. In Part 4, "Modeling the Learning Action Plan by the Parent" (15 minutes), the parent plays back the action words and the aide performs the routines as the parent did in Part 3. The aide may prompt, clarify, question, or elaborate for the parent, depending on the aide's observation and the parent's questions.

Part 5, "Extending the Learning Action Plan From Home to Home Related Settings" (10 minutes), concerns parent and child learning to generalize the skill to settings other than the home. For example, the aide shows the parent how to use the same skill with the child at the shopping mall, supermarket, at grandmother's house, and so forth.

The results of the P.I.A.G.E.T. way of involving parents in their children's education are comparable with other systematic forms of training for parent-child interaction and education. The first result showed that P.I.A.G.E.T. compared to control group parents significantly increased their positive attitudes toward school (Yawkey, 1991, in press). The second result was that P.I.A.G.E.T. parents compared to control group parents did a significantly number of home, community and school activities with their child (Yawkey, 1991, in press). These activities, for example, included homework, walks and games in local parks, and parent-school night. The third result was that P.I.A.G.E.T. compared to control group parents had significantly higher expectations of their children's abilities (Yawkey, 1991, in press).

Several related accomplishments of P.I.A.G.E.T. parent involvement include (Yawkey, 1991, in press):

1. Increasing number of parents coming into the P.I.A.G.E.T. classroom to watch their children and what they do;
2. Increasing requests from parents wanting their children in the P.I.A.G.E.T. Program;
3. After their children graduate from the P.I.A.G.ET. Program, these parents still return to the P.I.A.G.E.T. classrooms to say "hello," share recollections of the program, and tell us how their children are doing because of the program; and
4. P.I.A.G.E.T. aides and teachers continuing their formal college education. For example, three of the former P.I.A.G.E.T. aides have completed their Associate of Arts degrees, and one of these aides has completed her four-year college degree in Early Childhood/Special Education. Finally, one of our P.I.A.G.E.T. teachers has completed principal certification and is now principal of the same public school where she worked in the P.I.A.G.E.T. program.

The trend in early childhood education for parent involvement is reality. With it comes rightful parent empowerment and involvement in the learning processes of their children.

Using Computers

The next trend in early childhood education is the use of computers. Young children are surrounded by computers in various forms. In video arcades, they play numerous computer games with several skill levels and in home, they may have computer entertainment systems such as Nintendo, Atari, and so forth. In addition,

preschool to grade 12 schools, colleges, and universities have made the educational goal of computer literacy as one of their major components in restructuring. Wilson (1985) in Johnson, Christie and Yawkey (1987) notes that between 16% to 25% of all surveyed homes with young children currently have computers in their homes. This trend toward computer usage and literacy will definitely increase for young children in early childhood education (Johnson, Christie & Yawkey, 1987).

The results of using computers with young children show statistically significant gains for intellectual abilities, social interactions and problem solving, and for academic skills such as reading readiness, reading, mathematics readiness, and mathematics. Detailed discussions of the social and academic benefits derived from computer usage and selection criteria for purchasing computer software for young children and early childhood programs appear elsewhere (see Johnson, Christie & Yawkey, 1987).

Computers are necessary parts of early childhood and young children's development. Their increasing usage, like the other trends, is definite.

Using Peer Groups as Facilitators of Learning

The seventh and final trend in early childhood education involves peers with other peers as learners, motivators and problem solvers. Using peer groups as facilitators of learning is a recent artifact of research results in early childhood an prosocial behaviors (Jones & Yawkey, 1991, in press). Peer group thinking and the impacts of peer persuasion on other peer member's thinking are critical elements that influence children's cognitive and social development (Piaget & Inhelder, 1969). Peer groups as powerful tools for facilitating thinking, problem solving and for advancing cognitive development is also a key component of Piaget's cognitive-developmental theory and constructivism (Peters, Neisworth & Yawkey, 1985). In a recent study by

Coles in Snyder (1990), the results show the great impacts that peers have on other peers. Coles (in Snyder, 1990, p. 6) surveyed 5,000 children, four to 12 years of age, and asked them how they learned to problem solve and make decisions. Sixty-seven percent or 3,350 children out of 5,000 children said that they made decisions, solved problems, and brainstormed behavioral alternatives based on peer group discussion and talking and listening to peers (Cole in Snyder, 1990, p. 6).

Indeed, peers facilitate each others' problem solving and thinking abilities. From questioning each other, discussing, debating, and challenging, peer groups contribute meaningful and insightful intellectual and social growth. Through peer-peer interaction, children are able to "step-into-others'-shoes," see varying perspectives, and become more sociocentric in orientation rather than egocentric (Peters, Neisworth & Yawkey, 1985).

Cooperative Learning

One of many current strategies that employ effectively peer groups as facilitators of learning is cooperative learning (Trostle & Yawkey, 1991). For example, the procedure for cooperative learning requires three or more children in one group. Generally, the teacher establishes the goal or objective for the group. Examples of goals include "classifying rocks by their characteristics," "making a mural," or "writing a letter." In addition, each individual child is assigned a specific goal or responsibility that contributes to and helps achieve the group goal. The assignment of subgoals to children can be done in a number of ways. The teacher can assign, children can discuss the subgoals and select those which they prefer to accomplish, or children and teacher can mutually agree after group goals are defined and discussed. For example, in a paper assignment, one child becomes the "writer" who writes down group ideas, another child as "summarizer," another child "coach" or "motivator" for on-

target behaviors, and the group generates ideas for this task. Within this format, children discover, problem solve and debate as they work cooperatively in groups to achieve a goal together. This process also makes each child responsible to the group and work toward a team goal.

Using peer groups as facilitators of learning continues to increase in early childhood because it is effective, productive, and produces meaningful rather than group learning.

Conclusion

The exciting new trends in early childhood are significantly impacting the field. With the major accomplishment of crystallizing early childhood education as a birth through eight field, new innovations include: (a) restructuring early childhood education programs, (b) promoting positive self concepts, (c) developing "thinking" skills, (d) emphasizing active learning, (e) involving parents in their children's education, (f) using computers, and (g) using peer groups as facilitators of learning.

Individually and collectively these trends present substantial challenges to early childhood teachers, administrators, parents and children. In addition, these trends require more monies allocated for early childhood education and teaching salaries. The quality and strength with which these trends continue to evolve is necessarily tied to economics and the degree that responsible decision makers value educating now rather than prescribing remedies later Can we accept these challenges?

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